

CLAIMS

1. A thrust reverser comprising:
 - a nacelle having radially outer and inner skins extending axially from a leading edge defining an inlet to a trailing edge defining an outlet;
 - an outer door disposed in said outer skin, and mounted to said nacelle at a hinge joint;
 - a toggle link pivotally joined between said door and said nacelle for latching stowed said door in said nacelle; and
 - means for rotating said door about said hinge joint for deploying said door outwardly from said nacelle and toggling off said toggle link, and stowing inwardly said door upon reverse rotation thereof and toggling on said toggle link.
2. A reverser according to claim 1 wherein said toggle link includes a proximal end pivotally joined to said nacelle away from hinge joint, with a toggle line extending therebetween, and an opposite distal end disposed between said proximal end and said hinge joint laterally offset from said toggle line.
3. A reverser according to claim 2 wherein said distal end of said toggle link is laterally offset outboard of said toggle line in a stowed position of said door, and laterally offset inboard of said toggle line in a deployed position of said door.
4. A reverser according to claim 3 wherein said toggle link is telescopic and requires increasing compression force as length between said proximal and distal ends thereof decreases.
5. A reverser according to claim 4 wherein said toggle link has a first length in said stowed position, and a smaller second length in said deployed position.
6. A reverser according to claim 4 wherein said toggle link is spring loaded in compression between said proximal and distal ends thereof.

7. A reverser according to claim 4 wherein said toggle link is pivotally joined to an inboard side of said door.
8. A reverser according to claim 4 wherein said toggle link is pivotally joined to an outboard side of said door.
9. A reverser according to claim 4 further comprising:
 - an inner door pivotally mounted to said nacelle in said inner skin in opposition to said outer door;
 - a drive link pivotally joining together said outer and inner doors for simultaneous deployment by said rotating means; and
 - an interlock bracket joined to said inner door in abutting contact with said outer door in said stowed position for interlocking said inner and outer doors in said stowed position.
10. A reverser according to claim 9 wherein said interlock bracket is disposed at an aft end of said inner door to abut an aft end of said outer door.
11. A reverser according to claim 9 wherein said interlock bracket includes an adjustable stop pin for abutting said outer door.
12. A reverser according to claim 9 further comprising:
 - a pair of said outer doors disposed in axial alignment in said outer skin atop said inner door, with both outer doors having respective hinge joints in said nacelle;
 - a unison link pivotally joining together said pair of outer doors; and
 - said drive link pivotally joining together said outer door pair and said inner door for deploying outwardly in unison said outer doors as said inner door is deployed inwardly.
13. A reverser according to claim 12 wherein said toggle link is pivotally joined between said nacelle and a forward one of said outer doors.

14. A reverser according to claim 12 wherein said toggle link is pivotally joined between said nacelle and an aft one of said outer doors.
15. A reverser according to claim 12 wherein each of said outer doors include a respective toggle link pivotally joined to said nacelle.
16. A reverser according to claim 12 wherein said interlock bracket is fixedly joined to said inner door in abutting contact with a forward one of said outer doors.
17. A reverser according to claim 12 wherein said interlock bracket is fixedly joined to said inner door in abutting contact with an aft one of said outer doors.
18. A reverser according to claim 12 wherein said interlock bracket is fixedly joined to said inner door in abutting contact with both of said outer doors.
19. A reverser according to claim 12 wherein:
each of said outer doors includes a respective toggle link pivotally joined to said nacelle; and
said interlock bracket is fixedly joined to said inner door in abutting contact with both of said outer doors.
20. A reverser according to claim 19 wherein:
a forward one of said outer doors includes a forward toggle link pivotally joined to an inboard side of said forward outer door; and
an aft one of said outer doors includes an aft toggle link pivotally joined to an outboard side of said aft outer door.
21. A reverser according to claim 20 wherein said interlock bracket includes a forward adjustable stop pin for abutting an outer side of said forward door, and an aft adjustable stop

pin for abutting an inner side of said aft outer door.

22. A reverser according to claim 21 further comprising means for selectively locking closed said forward outer door to said nacelle.